

Notice of Allowability

Application No.

09/620,248

Examiner

Phirin Sam

Applicant(s)

DEBOER ET AL.

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/240/2005.
2. ☒ The allowed claim(s) is/are 2-8, 10-20, 22-25, 27-37, 42-44 and 46-57.
3. ☒ The drawings filed on 20 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



PHIRIN SAM
PRIMARY EXAMINER

DETAILED ACTION

Claims Cancellation

1. The request for cancel claims 38-41 and 45 filed on Mar 24, 2005 without prejudice or disclaimer has been noticed and entered.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Regarding claims 2-8 and 42, prior arts do not disclose a network element arranged to be coupled within a working path of an optical network, the network element comprising a combination of:

- (1) wherein the data traffic comprises a plurality of data units, each data unit comprising a path overhead that further comprises at least one protection byte; and
- (2) wherein to insert the protection switching data within the data traffic, the control unit inserts the protection switching data within the at least one protection byte.

Regarding claims 10-15 and 43, the prior arts do not disclose a network element arranged to be assigned within a protection path of an optical network, the network element comprising a combination of:

- (1) wherein the data traffic comprises a plurality of data units, each data unit comprising a path overhead that further comprises at least one protection byte; and
- (2) wherein the protection switching data within the data traffic is located within the at least one protection byte.

Regarding claims 16-20, 44, 51, and 52, the prior arts do not disclose a method for establishing an optical communication network of network elements and optical carrier (OC)

Art Unit: 2661

links, the method comprising a combination of:

- (1) inserting protection entries into tables within network element that can detect failures within the working path, the protection entries comprising protection switching data that indicates switch fabric modifications necessary to configure the protection path between the first network element and the second network element.

Regarding claims 22-25, the prior arts do not disclose a method for configuring a pre-assigned protection path within an optical network during a failure within a pre-configured working path, the method comprising a combination of:

- (1) each data unit comprising a path overhead that further comprises at least one protection byte, the transporting the protection switching data within the data traffic comprising inserting the protection switching data within the at least one protection byte of the path overhead and forwarding the data traffic; and
- (2) processing the protection switching data at each of the network element that requires reconfiguration such that the corresponding switch fabric are reconfigured.

Regarding claims 28-30, 33-35, 46-50, and 53-57, the prior arts do not disclose an optical communication network of network elements coupled together with optical carrier (OC) links, the optical communication network comprising a combination of:

- (1) wherein the data traffic comprises a plurality of data units, each data unit comprising a path overhead that further comprises at least one protection byte; and
- (2) wherein to insert the determined protection switching data into the data traffic, the particular network element operates to insert the protection switching data within the at least one protection byte.

Regarding claim 31, the prior arts do not disclose an optical communication network of network elements coupled together with optical carrier (OC) links, the optical communication network comprising a combination of:

- (1) each of the OC links within the first set comprising reserved bandwidth for the data traffic to traverse the working path; and
- (2) wherein tables within the network elements of the working path comprise a protection entry that dictates switching instructions that must be applied to the network elements of the protection path to configure the protection path.

Regarding claim 32, the prior arts do not disclose an optical communication network of network elements coupled together with optical carrier (OC) links, the optical communication network comprising a combination of:

- (1) each of the OC links of the second set comprising reserved bandwidth for the data traffic to traverse the protection path;
- (2) wherein tables within the network elements of the working path comprise a protection entry that dictates switching instructions that must be applied to the network elements of the protection path to configure the protection path.

Regarding claim 36, the prior arts do not disclose a network element arranged to be coupled within a working path of an optical network, the network element comprising a combination of:

- (1) wherein the data traffic comprises a plurality of data unit, each data unit comprising a path overhead that further comprises at least one protection byte; and

Art Unit: 2661

(2) wherein to insert the protection switching data within the data traffic, the means for inserting the determined protection switching data inserts the protection switching data within me at least one protection byte.

Regarding claim 37, the prior arts do not disclose a network element arranged to be assigned within a protection path of an optical network, the network element comprising a combination of:

- (1) means for receiving data traffic, the data traffic comprising a plurality of data units, each data unit comprising a path overhead that further comprises at least one protection byte and the protection switching data being located within the at east one protection byte;
- (2) wherein the means for processing the protection switching data comprises means for reconfiguring the network element in the case that the protection switching data comprises a switching instruction related to the network element.

Conclusion

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phirin Sam whose telephone number is (571) 272-3082. The examiner can normally be reached on Mon-Fri, 8:00AM - 4:30PM.

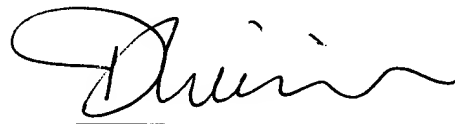
Art Unit: 2661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on (571) 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

Date: March 28, 2005

A handwritten signature in black ink, appearing to read 'Phirin Sam', written over a horizontal line.

**PHIRIN SAM
PRIMARY EXAMINER**